

U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 E Market St
Meeker, CO 81641

CATEGORICAL EXCLUSION

Natural Soda LLC, Production Well Pairs 15H, 16H, and 17H
DOI-BLM-CO-N05-2015-0034-CX

Identifying Information

Project Title: Natural Soda LLC, Production Well Pairs 15H, 16H, and 17H

Legal Description: Sixth Principal Meridian
T 1S, R 98 W
Section 27, Lot 16
Section 34, Lot 1
Section 35 Lot 4

Applicant: Natural Soda Inc.

Casefile/Project Number: COC118237-01
COC77086 (Off-lease well pad and access road ROW)
COC77175 (power line ROW)
COC77203 (pipeline ROW)

Issues and Concerns

The off lease portion of the Proposed Action's well pad, access, pipeline, and power line would require ROWs.

The majority of the proposed well pad is located on ExxonMobil's Oil Shale RDD Lease COC74300 and could adversely affect the development of the RDD lease.

The surface pipeline could impede livestock movement through the area which would require mitigation measures to provide access under or over the pipeline.

Conformance with the Land Use Plan

The Proposed Action is subject to and is in conformance (43 CFR 1610.5) with the following land use plan:

Land Use Plan: White River Record of Decision and Approved Resource Management Plan (1997 White River RMP)

Date Approved: July 1997

Decision Language: “Facilitate the orderly and environmentally sound development of sodium resources occurring on public lands.” (Pages 2-6 and 2-7)

Proposed Action

Project Components and General Schedule

Background/Introduction: Natural Soda LLC (NS) operates an in-situ sodium bicarbonate (nahcolite) solution mining operation and has been in continual operations since 1991. Their operation and facilities are located at the termination of Rio Blanco County (RBC) Road 31 (Figures 1 and 2) in the Piceance Creek Basin, approximately 37 miles west and south of Meeker, Colorado. NS current mining operations involve solution mining from six available mining well pairs. A plant expansion completed in spring of 2013 was designed to increase plant capacity from 125,000 tons per year to 250,000 tons per year. Production for 2014 was approximately 183,000 tons and is anticipated to increase to the new plant capacity within the next two years. Current production requires, as a minimum, the availability of three well pairs to adequately supply a continuous feed stock to the processing facility.

Solution mining of the nahcolite occurs at a depth of greater than 1,900 feet in a 35 to 40 foot depositional horizon of nahcolite, oil shale and nahcolitic-halite identified as the Boies Bed. In the current mining area the Boies Bed assays between 80 to 85 percent nahcolite. Progressing northeast of NS’s well field towards the depositional center of the basin, the Boies Bed transitions through a facies change from nahcolite to halite (sodium chloride). Halite is an impurity in the sodium bicarbonate solution mining recovery process and final product.

In 2014 NS submitted an application to modify federal sodium lease COC119986-01 to include an additional 160 acres south of their existing well field. The modification area overlays Simple Oil’s Oil Shale Research, Demonstration, and Development (RD&D) lease.

Proposed Action: NS proposes to locate well pad for 15H through 17H well pairs (Figures 1 and 2) and drill the associated horizontal production wells from the new location (Figure 2). The production zone of the well pairs would be located in NS’s COC118326-01 lease modification area and the pad would be located off lease to enable maximum recovery of the sodium resources. The addition well pairs would allow NS to have a backup plant feed in case of a disruption in any of the current mining cavities.

Access would be from an oil gas access road north of Rio Blanco County Road 83, approximately 170 feet in length and would have a 14 foot running width and a construction width of 30 feet (0.1 acres). The construction of well pad would be approximately 800 feet by 250 feet (4.5 acres). The proposed wells and access would involve approximately 4.6 acres of associated surface disturbance (Figure 2). Both injection and recovery wells for each well pair would be directionally drilled having a true vertical depth of approximately 1,900 feet with a measured depth of approximately 4,700 feet (horizontal length of 2,500 feet or more) for the injection wells (the longest wells). Construction of these wells is anticipated to begin in late spring early summer 2015 and require three to five weeks of drilling activity per bore. Drilling of the well pairs 15H and 17H would occur in 2015 and the 16H well pair would be drilled in 2016 or later. Overhead electrical power and surface production pipelines would be extended from the 8H pad area west to the proposed wells (Figure 2) and would affect

approximately 1 acre (1,200 feet in in a 35 feet wide corridor). The pipelines would be insulated and supported above the ground short lengths of pipe. Existing pipelines from the facility to the 8H pad would be upgrade to larger lines or additional lines would be added to the existing stands. The Proposed Action would affect a total of approximately 5.6 acres (well pad, access, pipeline and power line).

Construction, monitoring, reclamation, and maintenance activities for NS's facilities and well field are governed by the approved Mine Plan.

Design Features

All activities would comply with NS's approved reclamation and Mine Plan.

BLM Required Conditions of Approval to Mitigate Impacts to Cultural and Paleontological Resources

1. NS is responsible for informing all persons who are associated with the project that they will be subject to prosecution for knowingly disturbing archaeological sites or for collecting artifacts.
2. If any archaeological materials are discovered as a result of operations under this authorization, activity in the vicinity of the discovery will cease, and the BLM WRFO Archaeologist will be notified immediately. Work may not resume at that location until approved by the AO. NS will make every effort to protect the site from further impacts including looting, erosion, or other human or natural damage until BLM determines a treatment approach, and the treatment is completed. Unless previously determined in treatment plans or agreements, BLM will evaluate the cultural resources and, in consultation with the State Historic Preservation Office (SHPO), select the appropriate mitigation option within 48 hours of the discovery. NS, under guidance of the BLM, will implement the mitigation in a timely manner. The process will be fully documented in reports, site forms, maps, drawings, and photographs. The BLM will forward documentation to the SHPO for review and concurrence.
3. Pursuant to 43 CFR 10.4(g), NS must notify the AO, by telephone and written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), the operator must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.
4. NS is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for disturbing or collecting vertebrate or other scientifically-important fossils, collecting large amounts of petrified wood (over 25lbs./day, up to 250lbs./year), or collecting fossils for commercial purposes on public lands.
5. If any paleontological resources are discovered as a result of operations under this authorization, NS or any of his agents must stop work immediately at that site, immediately contact the BLM Paleontology Coordinator, and make every effort to protect

the site from further impacts, including looting, erosion, or other human or natural damage. Work may not resume at that location until approved by the AO. The BLM or designated paleontologist will evaluate the discovery and take action to protect or remove the resource within 10 working days. Within 10 days, the operator will be allowed to continue construction through the site, or will be given the choice of either (a) following the Paleontology Coordinator's instructions for stabilizing the fossil resource in place and avoiding further disturbance to the fossil resource, or (b) following the Paleontology Coordinator's instructions for mitigating impacts to the fossil resource prior to continuing construction through the project area.

Categorical Exclusion Review

The Proposed Action qualifies as a categorical exclusion under 516 DM 11.9, Number F-8: *"Approval of minor modifications to or minor variances from activities described in an approved underground or surface mine plan for leasable minerals (e.g., change in mining sequence or timing)."*

The Proposed Action has been reviewed with the list of extraordinary circumstances (43 CFR 46.215) described in the table below.

Extraordinary Circumstance	YES	NO
a) Have significant adverse effects on public health and safety.		X
b) Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands; floodplains; national monuments; migratory birds; and other ecologically significant or critical areas.		X
c) Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources.		X
d) Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.		X
e) Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.		X
f) Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.		X
g) Have significant impacts on properties listed, or eligible for listing, in the National Register of Historic Places as determined by the bureau.		X
h) Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have adverse effects on designated Critical Habitat for these species.		X
i) Violate a Federal law, or a State, local or tribal law or requirement imposed for the protection of the environment.		X
j) Have a disproportionately high and adverse effect on low income or minority populations.		X
k) Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly affect the physical integrity of such sacred sites.		X
l) Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote		X

Extraordinary Circumstance	YES	NO
the introduction, growth, or expansion of the range of such species.		

Interdisciplinary Review

The Proposed Action was presented to, and reviewed by, the White River Field Office interdisciplinary team on 2/3/2015. A complete list of resource specialists who participated in this review is available upon request from the White River Field Office. The table below lists resource specialists who provided additional review or remarks concerning cultural resources and special status species.

Name	Title	Resource	Date
Brian Yaquinto	Archaeologist	Cultural Resources, Native American Religious Concerns	5/28/2015
Ed Hollowed	Wildlife Biologist	Special Status Wildlife Species	6/10/2015
Matthew Dupire	Ecologist	Special Status Plant Species	6/11/2015
Paul Daggett	Mining Engineer	Project Lead	6/17/2015
Heather Sauls	Planning and Environmental Coordinator	NEPA Compliance	6/17/2015

Cultural Resources: A records search of the general project area yielded the area of potential effect (APE) had previously been surveyed for cultural resources at the Class III intensity level. One eligible site (5RB 398) and one “needs data” site (5RB 396), which has to be treated as potentially eligible, are located in the area of potential effect, however will not be adversely impacted by the proposed powerline and pipeline because construction activities will be far enough away to mitigate impacts to cultural resources. As a result, the proposed action will not have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places. The project inventory and evaluation is in compliance with the National Historic Preservation Act, the Colorado State Protocol Agreement, and other federal law, regulation, policy, and guidelines regarding cultural resources.

Native American Religious Concerns: No Native American religious concerns are known in the area, and none have been noted by Tribal authorities. Should recommended inventories or future consultations with Tribal authorities reveal the existence of such sensitive properties, appropriate mitigation and/or protection measures may be undertaken.

Threatened and Endangered Wildlife Species: Off-site depletion effects on endangered fish of the Upper Colorado River Basin (e.g., Colorado pikeminnow in the White River) are integral with, and have been fully addressed through Section 7 consultation conducted for the original mine project. The depletion volumes analyzed for the original action remain valid for this project component. All activity associated with the project proposal is encompassed by big game severe winter range and is subject to 1997 WRFO RMP-approved timing restrictions to reduce adverse behavioral influences, primarily elevated energy demands, on wintering big game. Direct loss of forage and cover resources (in the context of big game and migratory bird habitats) would be

minor and limited to about 1.6 acres of conifer-encroached sagebrush and about 1 acre of sagebrush-dominated shrubland. The remaining shrubland acreage was treated (i.e., sagebrush removed) to reduce the risk of facility damage from wildfire and remains in an herbaceous state. Based on raptor nest surveys conducted in the spring of 2014, there is no evidence of recent nest activity that would be vulnerable to disruption by pad construction or drilling activity. The nearest nest is beyond line-of-sight and over 260 meters from the nearest proposed disturbance. The remaining nest structures are located in excess of 300 meters from nearest proposed disturbance. The proposed powerline would be expected to conform to current raptor protection design guidelines.

Threatened and Endangered Plant Species: A botanical survey for special status plants was completed and submitted to WRFO in April of 2014. There was no special status plants or suitable habitat found in the area of the proposed action during this survey.

Mitigation

1. No construction activity of the Proposed Action may occur until the WRFO receives a signed verification letter from ExxonMobil stating the Proposed Action would not adversely affect the development of ExxonMobil's Oil Shale RDD Lease COC7300; or there is no interest in the development of Oil Shale RDD lease COC7300.
2. In the event the surface pipeline impedes livestock movement through the area NS will be required to implement provisions to allow adequate livestock access under or over the pipeline at appropriate location(s).

Tribes, Individuals, Organizations, or Agencies Consulted


None

Compliance with NEPA

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with 516 DM 11.9, F-8. This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The Proposed Action has been reviewed, and none of the extraordinary circumstances described in 43 CFR 46.215 apply.



Field Manager



Date

Appendix A. Figures

Figure 1

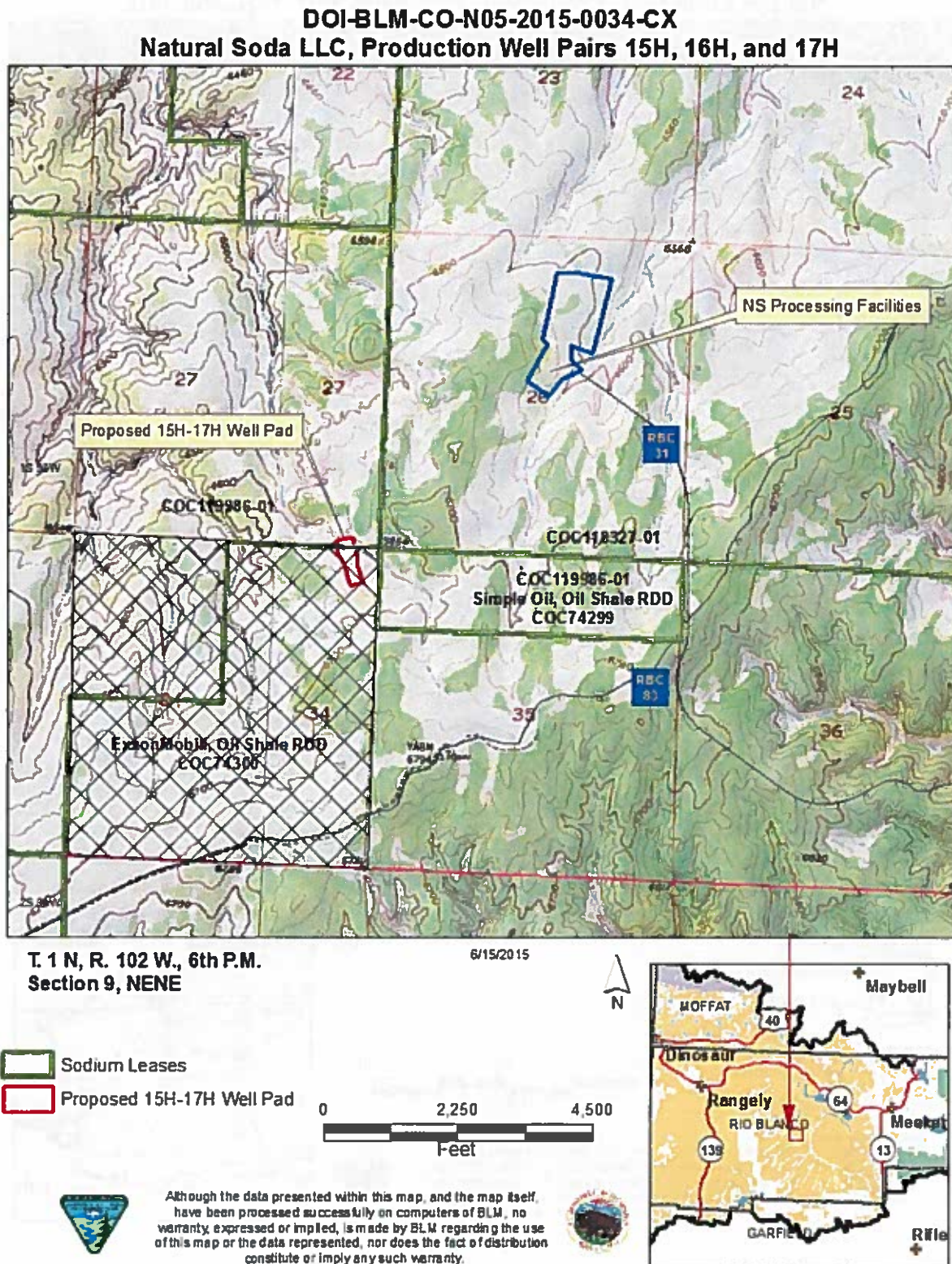


Figure 2

DOI-BLM-CO-N05-2015-0034-CX
Natural Soda LLC, Production Well Pairs 15H, 16H, and 17H



T. 1 N, R. 102 W., 6th P.M.
Section 9, NENE

6/15/2015

- Sodium Leases
- ExxonMobil Oil Shale RDD COC 74300
- Proposed 15H-17H Well Pad
- Proposed Pipeline
- Proposed Powerline

Access



Although the data presented within this map, and the map itself, have been processed successfully on computers of BLM, no warranty, expressed or implied, is made by BLM regarding the use of this map or the data represented, nor does the fact of distribution constitute or imply any such warranty.



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**U.S. Department of the Interior
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DECISION RECORD

Natural Soda Inc., Production Well Pair 15H, 16H, and 17H DOI-BLM-CO-N05-2015-0034-CX

Decision

It is my decision to implement the Proposed Action as described in DOI-BLM-CO-N05-2015-0034-CX, authorizing the construction, operation, and maintenance of Natural Soda LLC's, production well pairs 15H, 16H, 17H, and associated facilities involving approximately 5.6 acres.

Applicant Committed Design Features

1. All activities shall comply with NS's approved reclamation and Mine Plan.

BLM Required Conditions of Approval to Mitigate Impacts to Cultural and Paleontological Resources

2. NS is responsible for informing all persons who are associated with the project that they will be subject to prosecution for knowingly disturbing archaeological sites or for collecting artifacts.
3. If any archaeological materials are discovered as a result of operations under this authorization, activity in the vicinity of the discovery will cease, and the BLM WRFO Archaeologist will be notified immediately. Work may not resume at that location until approved by the AO. The NS will make every effort to protect the site from further impacts including looting, erosion, or other human or natural damage until BLM determines a treatment approach, and the treatment is completed. Unless previously determined in treatment plans or agreements, BLM will evaluate the cultural resources and, in consultation with the State Historic Preservation Office (SHPO), select the appropriate mitigation option within 48 hours of the discovery. The NS, under guidance of the BLM, will implement the mitigation in a timely manner. The process will be fully documented in reports, site forms, maps, drawings, and photographs. The BLM will forward documentation to the SHPO for review and concurrence.
4. Pursuant to 43 CFR 10.4(g), the applicant must notify the AO, by telephone and written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), the

operator must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the AO.

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Mitigation

7. No construction activity of the Proposed Action may occur until the WRFO receives a signed verification letter from ExxonMobil stating the Proposed Action would not adversely affect the development of ExxonMobil's Oil Shale RDD Lease COC7300; or there is no interest in the development of Oil Shale RDD lease COC7300.
8. In the event the surface pipeline impedes livestock movement through the area NS will be required to implement provisions to allow adequate livestock access under or over the pipeline at appropriate location(s).

Compliance with Laws & Conformance with the Land Use Plan

This decision is in compliance with the Endangered Species Act and the National Historic Preservation Act. It is also in conformance with the 1997 White River Record of Decision/Approved Resource Management Plan.

Public Involvement

This project was posted on the WRFO's on-line National Environmental Policy Act (NEPA) register on 2/5/2015. No comments or inquiries have been received as of 6/15/2015.

Rationale

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with 516 DM 11.9, F-8. This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances

potentially having effects that may significantly affect the environment. The Proposed Action has been reviewed, and none of the extraordinary circumstances described in 43 CFR 46.215 apply.

Construction of the 15H through 17H well pairs would provide a continuous feed stock to the processing facility.

Monitoring and Compliance

On-going compliance inspections and monitoring will be conducted by the BLM White River Field Office staff during and after construction. Specific mitigation developed in this document will be followed. NS will be notified of compliance related issues, and depending on the nature of the issue(s), will be provided 30 days to resolve such issues.

Administrative Remedies

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 Code of Federal Regulation (CFR), Part 4.400 and Form 1842-1. If an appeal is taken, your notice of appeal must be filed in this office (at the above address) within 30 days from date of publication this decision. The appellant has the burden of showing that the Decision appealed from is in error. If you wish to file a petition for a stay of the effectiveness of this Decision during the time that your appeal is being reviewed by the Board, the petition for stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. A copy of the notice of appeal and petition for a stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals (IBLA) and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for obtaining a stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied;
2. The likelihood of the appellant's success of the merits;
3. The likelihood of immediate and irreparable harm if the stay is not granted, and;
4. Whether the public interest favors granting the stay.

Signature of Authorized Official



Field Manager



Date

